asthma

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Asthma has been defined to be, "a short and labor-
"ious respiration, accompanied with a wheezing noise,
"generally coming on by fits and going off by a
"cough and spitting up of Phlegm." It has, ~~been~~
generally, been considered as a spasmodic affec-
tion of the Lungs. The returns of the paroxy-
sms are often periodical. The recurrence
may be Daily, Weekly, Monthly &c. Dr Heber-
den relates instances of Asthmatics, who
had four paroxysms a year: others two, in
the Spring and Fall. Some mention an
annual attack, which took place every
Winter: others, one in two years. These cases
may be considered as Anomalous; and per-
haps, in a majority of instances, the disease
does not return periodically. The short inter-
vals do not exceed three, six or seven days:
the longer, twelve, fourteen or fifteen days.
It has been observed that, generally, the lon-
ger the paroxysm, the longer the interval,
and vice versa.

The Causes of Asthma may be considered

as of two kinds: Such as act directly on the Lungs: and such as produce their effects indirectly, thro' the medium of the general System. Acrid matters applied to the Lungs by inhalation, as pungent odours, belong to the causes which act directly; as the vapour of Lead, Arsenic, the effluvia from hay, sealing wax, and certain burning substances. Several cases are recorded, in which the smell of Ipecacuanha produced a paroxysm; and I know a Physician in Maryland, whom Ipecac: affects in the same way. The irrespirable Gases produce the same effect; also variations in the sensible or occult properties of the Atmosphere. As the natives cannot sleep, with comfort, in a room where the air is confined. Country air is, generally, found more injurious than that of the City; and, there are variations, with respect to the air of Cities, for which we can assign no reason. On account of the lightness of the air of Mountainous Countries, they are more

unfavourable than low Countries. Rainy or foggy weather, a fall of snow, a change from frost to thaw, &c. will often bring on an attack.
Because, in confirmed Asthmatics, paroxysms sometimes return every two weeks, some have supposed the disease to depend on the changes of the Moon. But, the same objections which militate against this Theory of Menstruation, will destroy it, when applied to Asthma: I allude particularly to the objection, that, if this were the cause, attacks should occur in all Asthmatics at the same time; which is not the fact. Floyer says, the alterations in the state of the weather, at the changes of the Moon, might account for the occurrence of the paroxysms at those periods.

The second set of Causes, or those which act thro' the medium of the general System, may be referred to impressions made on the Alimentary Canal; by errors in diet, worms inanition, repletion, constipation &c. I have known a violent attack brought on, by

eating clams. Attacks have followed recession of eruptions, suppression of evacuations, metastasis & violent passions of mind, or any causes which increase the activity of the circulation, well excite it. Asthmatics have frequently a mal-formation of Chest: but sometimes it is well formed.

A description of a Paroxysm of asthma, is to be found in almost every writer who treats of the disease: and there is little or no variety in the description. I have nothing new to offer on this subject.

The disease, generally, attacks at night; and, usually, after the first sleep: but the paroxysm sometimes comes on in the day. It commences suddenly, with a sense of stricture across the breast, and frequent, short, and difficult respiration. These symptoms are increased by a horizontal posture; and the fear of suffocation compels the patient to arise, and seek cool air. The difficulty of breathing increases, and is attended with a wheezing noise. The patient finds difficulty in speaking; and has frequen-

sity to cough, which is executed with difficulty. After a continuance of some hours, these symptoms remit towards morning; perspiration ensues, mucus is secreted, and if this is discharged by spitting, much relief is afforded and the patient is released from a sense of his sufferings by a much desired repose. The sufferer enjoys some sleep in the morning, and during the day, the breathing is more easy; but entire relief is seldom experienced. There is still felt some tightness across the breast, and the symptoms are increased by motion. The patient cannot continue with ease in bed, unless the shoulders and head be elevated. Towards the evening, he feels drowsy, and flatulent. the difficulty of breathing returns, and the symptoms gradually increase, till the paroxysm again becomes severe. The disease returns, in this manner, for several nights successively, when it, gradually, goes off; and the patient enjoys his usual health

Dr Wright says, fits of Spasmodic asthma are often preceded by a great discharge of pale urine; so that patients, by this symptom, can be warned of their recurrence, two or three days before they come on. Dangerous attacks of asthma have been suspended, or terminated, by Gout, bleeding piles, cutaneous eruptions and some other diseases.

The Pulse is not much affected, during the fit; and often continues perfectly natural. The face is sometimes flushed and turgid: but, more generally, pale and shrunk. The urine is increased in quantity, and has but little colour or odour: but, after the paroxysm, the quantity is diminished, high-coloured, and deposits a lateritious sediment. Asthma is often a hereditary disease; and, more generally, met with in the Male than the Female subject. It may occur at any age; but, except from mal-conformation, seldom before Puberty.

As yet, the Pathology of asthma is in-

volved in much obscurity. Cullen says the "disease is an affection of the nervous System, depend-"ing upon a mobility of the moving fibres of the "Lungs", and supposes the proximate Cause to be "a, Spasmodic constriction of the muscular fib-"res of the Bronchia, which prevents that free "dilitation of them, which is necessary to a "free inspiration: and also, by causing rigi-"dity, prevents free expiration" Dr Bree thinks that, irritation in the air cells of the Lungs, arising either from an effusion of serum, or from aerial acrimony, is the proximate cause of convulsive asthma. Some refer the cause to a convulsive or spasmodic action of the Diaphragm: and Fl Coyer, who was an asthmatic, states that this spasmodic action does take place.

Dissections have not, as yet, afforded us much light, in discovering the nature or Cause of Asthma. After sudden death, the Lungs are often found healthy. Morgagni says, he has discovered extravasated serum

in the air cells of the Lungs, in most instances. In cases of long standing, dissection discovers various morbid affections

The Diagnosis is not difficult. The symptoms are peculiar, and not easily mistaken. Cullen gives us marks, by which it may be distinguished from Dyspnoea, with which it is most apt to be confounded.

Perhaps, we have not the same certainty as to the Prognosis. It seldom occasions sudden death, although the symptoms be very threatening. The arrival of puberty has cured it, when it has come on early in life: and when it thus occurs, and the constitution is unimpaired, we have some prospect of effecting a cure. But, if it continue to more advanced life, and especially, if the Chest be badly formed, it is far more obstinate. Asthma frequently terminates in Hydro-thorax, Consumption, Aneurism of the Heart or some large vessels &c. Dyspepsia is a very common attendant. Anasarcous swellings of the Lower extremities,

and Diabetes, often ensue in cases of long standing. When death takes place during the Paroxysm, there is great prostration of the system.

Asthma is divided into Spasmodic or Dry, and Humoral or Pituitous. The first is said to occur, mostly, in early; the second, in advanced life. I have been taught to consider Idiopathic and Symptomatic, a more correct division. But, as the treatment in the different forms does not vary, the distinction is not important.

We obviously, divide the Treatment of Asthma into that proper for the paroxysm, and that which is to be observed during the intermission.

In the first, where our object is to arrest the attack, if we were to draw our mode of treatment from symptoms, or from analogy, Venesection, we would suppose the most important remedy. But I believe, experience must decide, that the good effects of the remedy, are not so great as we should

be led to expect, from the interrupted state of the circulation thro' the Lungs, laborious respiration, and other attendant symptoms. But, in violent attacks, especially if the disease be not of long standing, and the Patient young and plethoric, venesection is, undoubtedly, useful. I have frequently heard of patients, in whom the violence of the paroxysm was almost immediately broken, by this remedy. It is also supposed, that, in violent attacks, it tends to prevent those effects which would otherwise follow. We must not allow ourselves to be entirely governed by the pulse in determining on this remedy; for it often remains natural: But we must consider all the attendant circumstances. It is remarked by one Author, that, in the United States, venesection is not hazardous in asthma, except in the greatly debilitated. We know that our inflammatory diseases are so in a high degree; and, that, venesection is safely carried farther than in many other Countries.

Thomas says, it is injurious, by delaying ex-

pectoration: but I believe it will be generally admitted, to be safe, except in elderly patients, or those much debilitated, by the long continuance of the disease. Dr Wright states, on the authority of Dr Barry, "that too great a loss of blood, will, in "those who have very delicate or irritable lungs, "be sometimes apt to produce asthmatic fits." But this does not militate against the cases, in which we have advised it. Should venesection be contra-indicated, or fail to give relief, cups should be applied to the chest or back. The last plan, is said to be by far the most effectual; but, I do not know, that any reason has been assigned for it.

Emetics are very important, in a violent paroxysm. They have been objected to by some; but, the objections do not appear to be well founded. I believe they are prescribed by most Physicians.

Thomas thinks them dangerous, when the respiration is much impeded, strength exhausted, and when there are symptoms of inflammation. By Cullen we are taught to believe, that, when a

fit is expected to come on, in the course of the night, an Emetic given in the evening, will frequently prevent it. Ipecacuanha is, perhaps, the best emetic; as it produces its effects, without those powerful sympathies, which Tartar, and some other medicines, produce. Arbuthnot first used this remedy: and thus contributed to the relief of the body, as, by his poetry, he has to the gratification of taste. "He gave a scruple during "the paroxysm, to afford immediate relief; and "then, from three to five grains, in the intervals, "every morning, to excite nausea with a view "to a permanent cure".

By the permission of the Physician of the Philadelphia Penitentiary, where I attended last summer, I tried this plan with a patient in that place; and its result has encouraged me to detail the case. Nathaniel Stevens, aged forty, had asthma for a long time; I think fifteen years or more. He was often compelled to sit up all night; and so ill, that his attendant thought he would die. The paroxysms were fre-

quent and severe. I ordered the apothecary to give him a scruple of Ipecac: when the next paroxysm came on; and then give five grains, every morning. After it had been thus used for a few weeks, he said he derived more benefit from it, than from any plan he had ever tried. The paroxysms became less frequent and severe. He was never compelled to sit up all night; and, at the time to which I allude, enjoyed comparative health. As the five grains, after being used for some time, purged him, I ordered the quantity to be diminished to three grains every other morning: which did not produce vomiting, but always excited nausea. During this course of treatment, a scruple was administered whenever the paroxysms returned. At first, he indulged sanguine hopes of a radical cure: but the after progress in improvement did not appear to be so speedy. His chest was well formed. Ill health obliged me to leave Philadelphia, towards the end of July, since which time I have

not seen him. He said when he omitted the medicine, for a few days, he would feel more unwell. After it had been used for some time, I ordered it to be omitted for a week, lest the stomach should loose its susceptibility to the impression. I think the result of this case in favour of the plan; and I shall be encouraged to try it again. As it is tedious and somewhat disagreeable, perhaps few patients would submit to it. Vomiting is best to break down the violence of the paroxysm: and nauseating doses to aid expectoration.

As the fit goes off, and a tendency to expectoration ensues, Expectorants are to be employed. The particular expectorant must be selected by the judgement of the Practitioner. When the Lungs are inactive, as in old persons, the more stimulating are required. Tartarized Antimony, Ipecac: Ammonia, Squill Senega &c may be employed. By Dr Sugrue of Cork, the tincture of Digitalis is highly recom-

mended.

Purging is not often found to relieve the vessels of the Thorax: and, this class of remedies are generally injurious, in affections of this parts - specially when urged to any extent. Caldwell thinks them safe and proper: but this is to be received with restrictions. But costiveness is always found to be injurious, and is to be avoided by the use of the proper laxatives. Magnesia or Rhubarb may be used; or an Enema, if the demand be urgent. Calomel is, perhaps, still better, as it is thought, by some, to display specific properties in pectoral affections

From the Spasmodic nature of Asthma, we would be naturally led to the use of Antispasmodics. Of these, opium is acknowledged to be the best. Some have supposed them always injurious: but this discrepancy of opinion must have arisen, from the different stages of the disease, in which they have been administered.

Early in the attack, they will prove injurious. I was taught this fact, early in the course of my studies, by having given opium in the commencement of an attack, brought on by improper diet. When the paroxysm has had the previous necessary treatment, opiates will be useful. Cullen considers the difference of opinion with respect to the utility of opium, which he considers the best antispasmodic, has arisen, from not distinguishing between plethoric and inflammatory Dyspnoea, and the genuine spasmodic asthma.

Other narcotics and Antispasmodics, need not be particularly mentioned: as they are all inferior to opium. Musk Assafoetida, Castor, Stramonium, Tobacco &c have been employed. Ether is said to be good; especially when combined with opium. A table spoon-ful of the juice of garlic, with an equal quantity of water, is highly recommended. The root of the Sta-

monium is dried, crumbled and smoked. Experience proves it, best adapted to the Spasmodic form. But this and Tobacco will sometimes increase the symptoms. I have known a domestic remedy, which I have never seen mentioned, used, as preventive and palliative. I allude to the cotton seed tea. I am not prepared to say how it acts; but, in the case to which I allude, it was thought of some efficacy. I have lately learned, that a Gentleman in Maryland, with whom I am well acquainted, and who has been an Asthmatic for many years, has, within the last few months, used the Balsam Copaiva; and that he has been much pleased with its effects. I have not had an opportunity of seeing him, since I learned this; but I received it from an intelligent Physician, to whom he communicated it. He takes it during the intermission; and twenty five or thirty drops, when he feels the symptoms of an approaching paroxysm. He thinks he has desired more ad-

vantage from it, than from any other remedy. To use his own language, "it has almost made a cure of him. I am afraid time will prove his anticipations too sanguine: but it is certainly worthy of further trial. In diseases, reasoning often fails, when chance may lead to important discoveries. Arsenic has been given, in the Spasmodic form of the disease, with considerable and encouraging effect.

Blisters on the breast or between the shoulders, are of little service. The Tartar Emetic plaster has been employed in place of the blister. Issues, perhaps, have not stronger recommendations than Blisters. But, it might be advanced in their favour, that King William was free from asthma, during the discharge of the wound, which he recieved at the battle of Boyne.

Many remedies have been employed, to afford relief during the paroxysm; as large draughts of cold water; at other times hot water; strong coffee, without cream or su-

gar. The efficacy of coffee, may be owing to its expectorant powers; which, perhaps, every one has experienced after taking it at breakfast.

Exposure to cold air, and at other times, sitting with the feet near to the fire, have been serviceable. It will be seen that opposite remedies, have, at different times, been useful.

To use the language of one, who is able to describe with elegance, what he has conceived with judgement, "In actual practice, "we are often obliged to lay aside the pride of "Science, and, in the genuine spirit of Empi-"ricism, adopt that practice, which has had "the sanction of experience".

A variety of inhalations have been used, with a view of relieving the Lungs, when oppressed with mucus; as the steam of warm water, received from an inhaler or the mouth of a tea-pot. The inhalation of tar under liquefaction, or of turpentine, thrown on burning coals, have been recommended.

Tar and Garlic are often given internally

and sometimes combined.

Wilson Philip, in his late work on Indigestion, mentions what he calls habitual asthma, as one of the organic diseases, in which indigestion frequently terminates: and for the relief of which he highly recommends Galvanism. He does not expect much from the remedy in that form of the disease, which returns in violent paroxysms, with intervals of perfectly free breathing: but states, that it is sometimes useful in protracted cases of spasmodic asthma; when the fits have been less severe, and more or less difficulty of breathing is almost constantly experienced. For his reasoning and mode of using the remedy, I refer to the latter part of his work. If the facts he mentions may be depended on (and they appear to be well authenticated) the remedy is very valuable.

The Treatment, during the intermissions, to prevent the recurrence of the Paroxysms or to

eradicate the disease, now demands our attention. For this purpose, Tonics are chiefly employed. The alimentary Canal is much disordered; and the treatment is very similar to that demanded in Dyspepsia.

Perhaps none of the Tonics have specific properties to recommend them here. Peruvian Bark, the Chalybeates, bitters &c may be employed. Cold bathing is good, if it be followed by a glow over the surface, attended with sprightliness and increase of vigour. But if succeeded by chilliness headache or lassitude, it must be abandoned The flesh brush may be useful. Changes in temperature should be avoided; and flannel worn next the skin. Dr Wolly to says "a "sudden diminution of perspiration or con- "traction of the cutaneous vessels, from "cold, may, by turning the humours in too "great quantity upon the Lungs, occasion "fit." Exercise in the open air, particularly on horse back, if the strength be sufficient

is a good auxiliary. Sailing is also good. Long journeys, and exposure to military hardships, have been serviceable. Bagley says following the plough has promoted a cure. Articles of diet or drink which distend the stomach, either by the quantity or by the evolution of Gas, are injurious; as the free action of the Diaphragm is thus impeded. The diet should be light and easy of digestion. Spirituous and fermented liquors should be avoided. The place of residence most proper for an asthmatic, must be determined by individual experience; as one finds himself most comfortable in a City; another in the Country: one in a high, another in a low situation: but, generally, the air of low grounds is better than that of mountains.